

**GENERAL FEATURES**

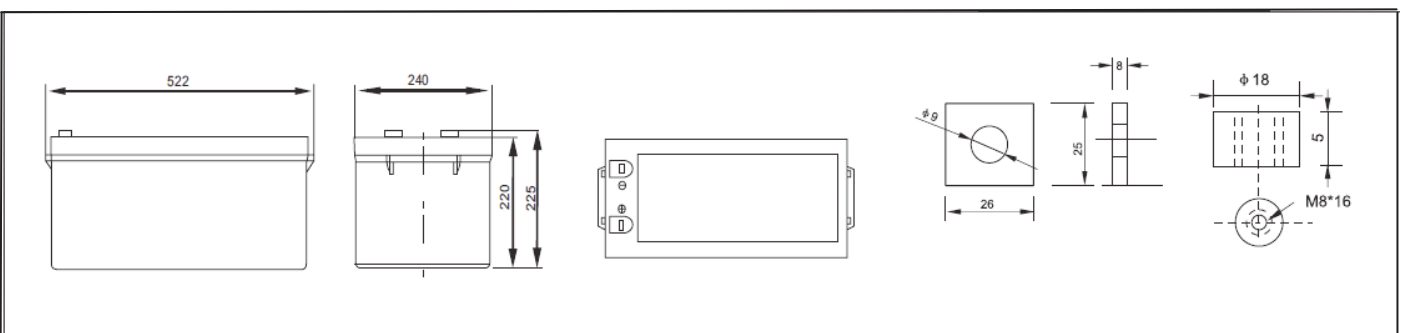
- Longer cycle life: special paste formula, over dimensioned negative plate, optimized manufacturing process, additives for deep discharge.
- Special separators boost up the battery internal performance.
- Using oxygen recombination technology, maintenance-free and little water loss.
- ABS material: enhanced strength of the battery container. (Flame-retardant, optional).
- Designed to have a lifespan of 12 years for float charging at 25°C


**APPLICATIONS**

- Electric tools
- Vehicle in place of walking
- Lawn mowers
- Golf trolleys and golf cart
- Power system of special network or local area network
- Electric toys
- Railway and marine systems
- Fire alarms
- Solar and wind power system
- Electric wheelchairs
- Medical equipment

**SPECIFICATIONS**

|  |   |                        |                         |                    |
|--|---|------------------------|-------------------------|--------------------|
| <b>Model</b>                             | Nominal Voltage   | 12V                    |                         |                    |
|  | Rated Capacity (10Hr rate)                              | 200Ah                  |                         |                    |
| <b>Dimensions</b>                        | Length  | Width                  | Height                  | Total Height       |
|  | 522mm (20.55")  | 240mm (9.45")          | 220mm (8.66")           | 244mm (9.60")      |
| <b>Weight</b>                            | Approx. 60.0kg ± 3%                                     |                        |                         |                    |
| <b>Capacity @25°C (77°F)</b>             | 10 Hour (20A,10.8V)                                     | 5 Hour (34A,10.5V)     | 3 Hour (50A,10.2V)      | 1 Hour (110A,9.6V) |
|  | 200Ah   | 170Ah                  | 150Ah                   | 110Ah              |
| <b>Internal Resistance</b>               | Fully charged at 25°C, approx. 6.0mΩ                    |                        |                         |                    |
| <b>Max. Discharge current</b>            | 2000A (5 Sec.)  |                        |                         |                    |
| <b>Capacity Affected by Temp. (20Hr)</b> | 40°C (104°F)  | 25°C (77°F)            | 0°C (32°F)              | -15°C (5°F)        |
|  | 102%  | 100%                   | 85%                     | 65%                |
| <b>Self Discharge Rate @25°C (77°F)</b>  | After 3 months Storage                                  | After 6 months Storage | After 12 months Storage |                    |
|  | 91%   | 82%                    | 64%                     |                    |
| <b>Charge Method</b>                     | Cycle Use   |                        | Float Charging          |                    |
|  | 14.1-14.4V (Initial current less than 73A) @25°C (77°F) |                        | 13.5-13.8V@25°C (77°F)  |                    |

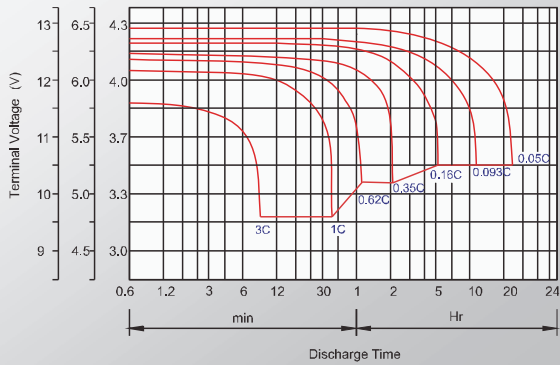
**DIMENSIONS & TERMINALS**


**PERFORMANCE CHARACTERISTICS**

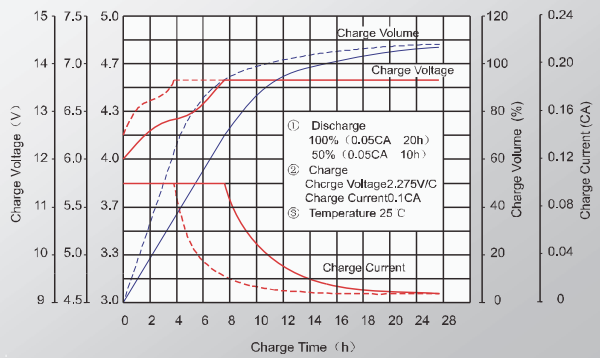
**Constant Current (Amp.) and Constant Power (Watt) Discharge Table @25°C (77°F)**

| Cell Voltage / Time |   | 5min    | 10min   | 15min   | 30min   | 1hr     | 2hr    | 3hr    | 4hr    | 5hr    | 8hr    | 10hr   | 20hr   |
|---------------------|---|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|
| 9.60V               | A | 589.00  | 388.00  | 313.00  | 210.00  | 110.00  | 64.00  | 47.30  | 36.80  | 30.40  | 21.50  | 19.30  | 10.40  |
|                     | W | 6082.00 | 4146.00 | 3356.00 | 2255.00 | 1192.00 | 707.00 | 526.30 | 414.00 | 345.20 | 246.70 | 223.10 | 121.30 |
| 10.20V              | A | 571.00  | 350.00  | 295.00  | 201.00  | 104.00  | 61.00  | 46.00  | 35.90  | 29.80  | 21.00  | 19.00  | 10.10  |
|                     | W | 6096.00 | 3912.00 | 3298.00 | 2251.00 | 1174.00 | 708.00 | 532.70 | 417.20 | 347.50 | 245.40 | 222.60 | 118.70 |
| 10.50V              | A | 552.00  | 313.00  | 258.00  | 188.00  | 100.00  | 60.00  | 44.90  | 35.30  | 29.40  | 20.80  | 18.60  | 10.10  |
|                     | W | 6030.00 | 3565.00 | 2942.00 | 2160.00 | 1163.00 | 696.00 | 523.10 | 413.30 | 345.20 | 244.50 | 219.90 | 119.60 |
| 10.80V              | A | 532.00  | 295.00  | 240.00  | 173.00  | 97.00   | 59.00  | 43.80  | 34.80  | 28.70  | 20.20  | 18.40  | 9.90   |
|                     | W | 5970.00 | 3406.00 | 2760.00 | 2004.00 | 1131.00 | 685.00 | 516.30 | 410.60 | 339.30 | 239.80 | 218.70 | 118.30 |
| 11.10V              | A | 514.00  | 277.00  | 221.00  | 155.00  | 94.00   | 57.00  | 42.30  | 33.90  | 28.00  | 19.70  | 17.50  | 9.40   |
|                     | W | 5832.00 | 3205.00 | 2574.00 | 1808.00 | 1104.00 | 674.00 | 502.80 | 403.20 | 333.80 | 235.80 | 211.00 | 113.70 |

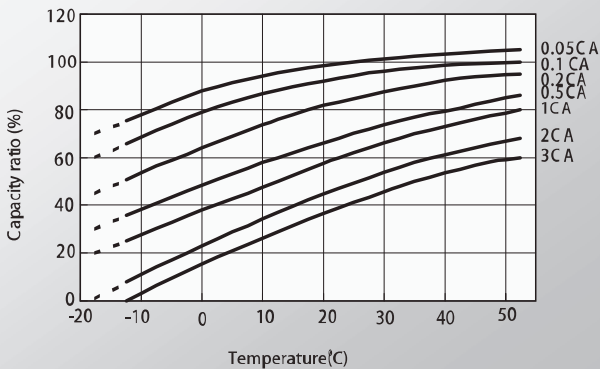
**DISCHARGE CHARACTERISTICS**



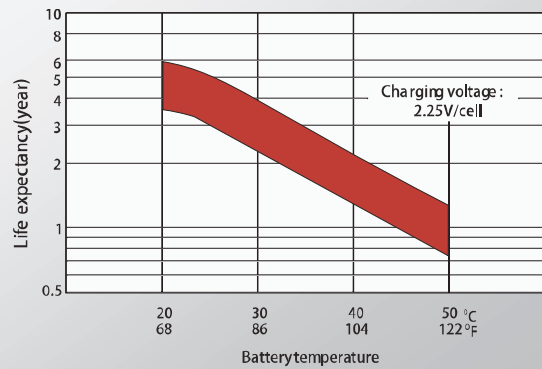
**CHARGING CHARACTERISTICS (STANDBY)**



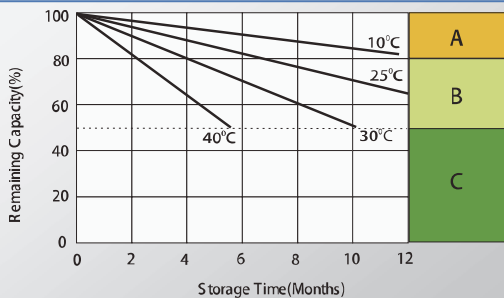
**TEMP. EFFECTS IN RELATION TO BATTERY CAPACITY**



**EFFECT OF TEMP. ON LONG TERM FLOAT DESIGNED LIFE**



**SELF DISCHARGE CHARACTERISTICS**



A. No supplementary charge required. (Carry out supplementary charge before use if 100% capacity is required.)  
 B. Supplementary charge required before use. Optional charging way as below:  
 1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.  
 2. Charged for above 20hours at limited current 0.25CA and constant voltage 2.45V/cell.  
 3. Charged for 8-10hours at limited current 0.05CA.  
 C. Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.

**CYCLE LIFE IN RELATION TO THE DEPTH OF DISCHARGE**

